DD/M&S Registr,
File O+M2-2

DD/M&S 74-2229

18 June 1974

MEMORANDUM FOR: DD/M&S ADP Control Officers

SUBJECT : ADP Resource Allocation System

1. Attached for your action is the ADP resource allocation package developed by OJCS. It consists of: (1) a general description of the ADP resource allocation system; (2) instructions on how to respond to the "ADP Call"; (3) three questionnaires covering existing batch projects, existing time sharing projects, and new projects; (4) a worksheet for new projects; and (5) data sheets detailing the resources used through April of FY 1974 by each component for each of the ADP projects it has. These forms and data sheets may be reproduced within each component as necessary.

2. Please note that the final product is due in OJCS by 8 July 1974. To allow some time for review by the DD/M&S, it is requested that components' completed ADP Calls be in the office of the Acting Chief, Plans Staff by close of business 28 June 1974. If this tight deadline causes real problems, please call and we will see if we can negotiate a new one.

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Acting Chief, DDM&S Plans Staff

STATINTL

Atts.

Distribution:
  Orig - OC ADP Control Officer w/Atts.
    1 - OF, OL, OMS, OP, OS, OTR [   ] ADP Control Officers w/Atts.
    1 - OJCS ADP Control Officer w/o Atts.
    1 - DDM&S Subject w/Atts.
    1 - DDM&S Chrono
    1 - PS

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ADP RESOURCE ALLOCATION SYSTEM

1.   The ADP Resource Allocation System provides a
mechanism for management to monitor and control the use of the
ADP resources administered by the Office of Joint Computer Sup-
port (OJCS). The overall objective is to give users a larger role
in planning the level and type of ADP support they require, and a
larger responsibility for ensuring that the use of ADP resources
remains within established constraints. Growth of ADP costs will
be controlled through more deliberate planning of activity levels
for existing or future projects, and users will be expected to set
priorities among their various projects.

2.   For purposes of allocation, OJCS resources will be
subdivided into five major categories, as follows:

> Manpower
> Batch Processing (360/OS)
> Time Sharing (360/CP)
> Data Preparation and Card Processing
> Other

FY 1975 allocations for the first three categories will be projected
by each user Office. Allocations for the last two categories (which
are minor in scope) will be determined by calculation. All alloca-
tions will be expressed in dollar terms.

3.   Requests for OJCS services will be controlled by desig-
nated Office ADP Control Officers. Prior to the start of a Fiscal
Year, each Office ADP Control Officer will be provided with data
on the past year's experience of his Office, and he will be asked to
verify whether each project is to continue and at what level. He will
also be asked to predict what new projects are likely, and OJCS will
assist him to determine the dollar level of services needed for each
prospective project. Office requests for OJCS services will be for-
warded via the appropriate Directorate ADP Control Officer to OJCS.

4.   The allocations projected for FY 1975 by all the using
Offices will be consolidated and then measured against the capacity
available within OJCS. If the aggregate projections exceed capacity,
the necessary changes in allocations will be the subject of negotiations
led by the Comptroller and participated in by the Directorate ADP
Control Officers. If the projections do not exceed capacity, approval
will be automatic.

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5. Allocations will be made at the Office level, with a reserve allocation of all categories of service for each Directorate. Allocation may be transferred by a Directorate from Office to Office, but transfers must always be within one of the five categories. For example, dollars can move from Office A's Batch Processing account to Office B's Batch Processing account, but dollar transfers cannot be made between unlike categories, such as Manpower to Batch Processing. (Transfers of allocations should be recorded in OJCS by the Directorate ADP Control Officer.)

6. Once an Office's allocation for the Fiscal Year is established, the total dollars for each category will remain constant for that year unless amended in accordance with the procedures in paragraph 9 below. Performance reports will reflect actual monthly activity, actual year-to-date activity versus the year-to-date projections, and total yearly allocations versus total remaining allocation.

7. The Office which exceeds its allocation faces a change in the quality of service provided (i.e., low-priority over-the-weekend service instead of same-day service) or even rejection of requests for service. The Office which has not exceeded its allocation will have clear priority over the Office which is in arrears.

8. All requests for new service or for changes in existing projects must be endorsed by the Office ADP Control Officer, who will be expected to weigh the impact of these proposals on the Office's total allocation of ADP resources. If a change was not projected at the time the annual allocation was prepared, the Control Officer should suggest adjustments in other, lower priority projects to make resources available for the new activity, or else seek an increase in the Office allocations.

9. If an ADP Control Officer perceives a trend which indicates that the Office is likely to exceed its allocation, he has several options. First, he should review remaining requirements for possible reduction or elimination of lower priority projects in an effort to free the needed allocation. If this cannot be done, his Office Director can request an additional allocation from his Directorate. If the appropriate Deputy Director approves the request, he can increase allocations of the requesting Office by (1) charging the Directorate reserve, (2) reducing the account of another Office within the Directorate, or (3) requesting aid from other Directorates via the Comptroller. The Comptroller will undertake to determine where an excess allocation may exist and to broker the necessary transfers.

10. Over time, it may be necessary to revise the price rate structure to reflect changes in both the types of services provided and the technology required. When rate changes are effected, provision will be made such that existing allocations will not be reduced.

11. There are instances where because of machine failure or operator error a job is improperly processed and must necessarily be reprocessed. In FY 1974 users have been charged for such batch work, but for FY 1975 a procedure will be set up for reporting jobs of this nature and also for appropriately crediting the user's account. A special reserve account will be allocated to OJCS which will be used to absorb these costs.

12. It should be noted that OJCS is both a supplier and user of ADP resources. OJCS will have an allocation set for those activities not considered to be direct overhead. In order to control those overhead activities related to the supplier aspect, an internal cost system is necessary and is to be addressed. As a user, however, OJCS has been billing itself and will continue to do so in the future.

ADP RESOURCE ALLOCATION SYSTEM

General

This "ADP Call" asks users of OJCS services to project their future requirements so that allocation of OJCS ADP resources can be set for FY 1975. Although allocations will continue to be made on the Office level, users are asked to submit their FY 1975 requirements at the project level. This is because all work performed by OJCS is associated with projects and all activity reported to users is summarized by project.

The attached reports provide a record of the activity of each project during FY 1974. The FY 1974 data which concerns manpower and computer usage is displayed in the same format as that requested for the FY 1975 projections.

There are three types of questionnaires; one each for existing batch projects, for existing time sharing projects, and for new projects. Batch projects are defined as those running under the IBM 360 Operating System, thus projects such as SANCA and MAP are to be reported in the batch category. Time sharing projects are defined as those running under the Cambridge Monitor System (CP/CMS). There are some existing projects that use both the categories, batch and time sharing. In this event, two questionnaires are provided for the project so that the batch projections and the time sharing projections can be recorded. For new projects, provision has been made to record all data on one form.

The forms pertaining to existing projects contain a series of "yes-no" questions. When the answer is "no" to question number one, check it on the form and ignore the rest of the questions. When an answer is "no" to any of the remaining questions, that is all the information necessary for that particular question. When an answer is "yes," it is expected that the FY 1975 requirements be recorded on the work sheet associated with that project. After completing the work sheets, please attach the appropriate questionnaires to them.

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In the event more information is necessary or technical consultation is required before the requested projection can be completed, please contact the Chief, Support Staff, Applications Division, OJCS, extension ☐ Prior to this contact, the following items should be complete: (1) a list of the functions the project supports, (2) the priority of the project, (3) a written specification of the planned modifications or additions for existing projects, and (4) a written description of the entire project if it is a new one.

Once the FY 1975 data have been completed, send the forms to your Directorate ADP Control Officer for review and approval. After this step, the forms should then be sent on to the Chief, Management Staff, OJCS, Room 2 E-29, Headquarters by 8 July 1974.

Existing Time Sharing Projects

Question 1.   Will this project continue for the next fiscal year?
If the project encompasses both batch and time sharing,
you will receive two separate questionnaires. Please list
the supported functions on the batch form. If the project
is exclusively time sharing, list as concisely as possible
the functions that are directly supported by this project.

Question 2.   What is the priority rating of this project?
Designate the priority rating of this project as either "1"
"2," or "3." The meaning of each rating is as follows:

1. This project is absolutely essential, there
is no possibility of reducing its scope.

2. Some reduction of this project is possible,
if done there would be somewhat less timeli-
ness of information and some dislocation of
manpower and/or dollars.

3. This project complements and makes other
work more effective. Reduction or elimina-
tion would result in complex and/or awkward
situations.

Question 3.   Will the number of terminal sessions change?
A terminal session is defined as that period which begins
when you log on and ends when you log off. The number of
terminal sessions is an indicator of the level of activity of
a project. Factora that can change the number of sessions
required for a project are changes in external requirements
or in the events that trigger the need for the work performed
at the terminal. Other factors to consider are the experience
level of your staff and how much can be accomplished in a
session.

If you have indicated there will be no change in the number
of terminal sessions in FY 1975, go to the next question.
If there will be a change, enter the total number of sessions
expected for each month of FY 1975 on the attached chart.
The number of sessions charged to this project through
April of FY 1974 are displayed on the chart for this project.

Question 4.   <u>Will the average length (connect time) of a terminal</u>
<u>session change?</u>
The average length of each terminal session is another
indicator of the activity level of a project.   In general,
there is a good correlation between the length of a session
and the amount of computer resources expended.

If you have indicated there will be no change in the length
of a terminal session in FY 1975, go to the next question.
If there will be a change, enter the average length of each
session expected for each month of FY 1975 on the attached
chart.

Question 5.   <u>Will there by any modification or addition to the software?</u>
If it is planned to use OJCS manpower for this effort, esti-
mate the level of support for this project in terms of man-
hours, terminal sessions, and the average length of each
session.   (The data on terminal sessions will be considered
additional to that supplied for question 3 and 4.)   As stated
previously, if you need any assistance from OJCS, contact
the Chief, Support Staff, Applications Division.

If it is planned to use OJCS hardware but not OJCS manpower
for this effort, enter only terminal session data.

Attach the list of planned modifications and/or additions of
OJCS manpower to be used.

Question 6.   <u>Will there be a change in the requirements for equipment that</u>
<u>is located within your area?</u>
Specify all equipment that will be electrically interfaced with
the OJCS Computer Center and in addition any equipment that
you expect OJCS to be responsible for, its rental and/or main-
tenance, regardless of how or whether it is interfaced.

List the names and model numbers of each piece of equipment
to be added or removed in the leftmost column and indicate
"install" or "remove" opposite the appropriate month.

If the equipment supports more than one project, do not list
it separately with those projects; it should be reported only
once.

Existing Batch Projects
(IBM 360/OS)

Question 1.   Will this project continue for the next fiscal year?
List as concisely as possible the functions that are
directly supported by this project.

Question 2.   What is the priority rating of this project?
Designate the priority rating of this project as either
"1," "2," or "3." The meanings of each rating are as
follows:

1. This project is absolutely essential, there
   is no possibility of reducing its scope.

2. Some reduction of this project is possible; if
   done there would be somewhat less timeliness
   of information, some dislocations of manpower
   and/or dollars.

3. This project complements and makes other
   types of work more effective. Reduction or
   elimination would result in complex, and/or
   awkward situations.

Question 3.   Will the number of runs change?
The number of runs indicates the level of activity of a proj-
ect. Factors that can change the number of runs are changes
in external requirements or events that trigger the need for
the process. An example would be changes in the cycle or
periodicity of reports which result in an increase or decrease
of the runs necessary to produce the reports. Another ex-
ample, changes in the periodicity of the collection or genera-
tion of input data can result in corresponding changes to the
number of runs required.

The attached chart shows the number of runs used each
month by this project in FY 1974 through the month of April.
If you have indicated there will be no change in the number
of runs for FY 1975, go to the next question. If there will
be a change, enter the total number of runs expected for
each month of FY 1975 on the chart.

Question 4.   Will the amount of central processor time change?
The amount of time required of the central processor unit
(CPU) is another indicator of the activity level of a project.
Factors that affect it are the number of runs and the amount
of processing required per run.   Changes within a run's
processing time are caused by such things as increases or
decreases in the number of transactions.   Transactions
can be anything from personnel actions or search queries
to radar or telemetry data.   Changes in CPU time are also
caused by changes in the number of variables, in the size
of a matrix, in mathematical techniques, in a data storage
strategy, or in a search technique.   Finally, changes in
processing time occur for some processes when the size
of the data base changes.

The attached chart shows the CPU time in hours used each
month by this project in FY 1974 through the month of
April.   Enter in the space provided the amount of CPU
time expected each month for this project in fiscal 1975.

Question 5.   Will there be any modifications or additions to the software?
If it is planned to use OJCS manpower for this effort, esti-
mate the level of support for the project in terms of man-
hours and CPU time.   (The CPU time will be considered
additional to that estimated for Question 4.)   The attached
chart shows the total OJCS manhours charged to this project
in FY 1974 through the month of April.

If it is planned to use OJCS hardware but not OJCS manhours
for this effort, enter CPU time only.

As stated previously, if you need any assistance from OJCS,
contact the Chief, Support Staff, Applications Division.

Attach the list of planned modifications and/or additions if
OJCS manpower is to be used.

Question 6.   Will there be a change in requirements for equipment located
within your area?
Specify all additional equipment that will be electrically inter-
faced with the OJCS Computer Center and any equipment that
you expect OJCS to be responsible for its rental and/or main-
tenance regardless of how or whether it is interfaced.   List
the names and model number of each piece of equipment to
be added or removed in the leftmost column and write "install"
or "remove" under the appropriate month.   If the equipment
supports more than one project do not list it separately with
those projects; it should be reported only once.

New Projects

1. List as concisely as possible the functions that will be directly supported by this project.

2. What is the priority rating of this project?
    Designate the priority rating of this project as either "1," "2," or "3." The meaning of each rating is as follows:

    1 - This project is absolutely essential, there is no possibility of reducing its scope.

    2 - Some reduction of this project is possible; if done there would be somewhat less timeliness of information, some dislocation of manpower and/or dollars.

    3 - This project complements and makes other types of work more effective. Reduction or elimination would result in complex and/or awkward situations.

3. Do you plan to use OJCS manpower to develop this project?
    If yes, record your manpower requirements on the attached chart. If you feel the need for technical consultation, contact the Chief, Support Staff, Applications Division, OJCS (extension ☐ and request aid. If you do not plan to use OJCS manpower, do not enter any data.

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4. Do you plan to use OJCS computers to develop this project?
    If yes, enter the CPU hours expected for each month of the project's development phase. Please distinguish between batch and CP/CMS requirements. If you do not plan to use OJCS computers for development, do not enter any data.

5. Do you plan to use OJCS computers for production work once this project is developed?
    If yes, enter the CPU hours expected each month. Please distinguish between Batch and CP/CMS requirements. If OJCS manpower is required for any reason (i. e. , program maintenance, production control, etc.) to support the production phase enter the expected manhours on the attached chart.

6. Does this project require permanent on-line disk storage?
    If yes, list the total space requirement for each month of FY 1975. Your projection will be used to plan for hardware, thus we need only consider the data which must be permanently on-line. (The detailed information about each data file used to calculate the overall estimate should be retained by your project manager.) The estimate is to be projected in terms of number of records and average record length.

7. Will there be a requirement for equipment to be located within
    your area?
    Specify all equipment that will be electrically interfaced with the
    OJCS Computer Center and any equipment that you expect OJCS
    to be responsible for its rental and/or maintenance regardless of
    how or whether it is interfaced. List the names and model number
    of each piece of equipment to be added in the leftmost column and
    write "install" under the appropriate month. If the equipment sup-
    ports more than one project do not list it separately with those
    projects; it should be reported only once.

Existing Batch Projects
(IBM 360/OS)

Project Name: _____ Organization: _____

1. Will this project continue for the next fiscal year?   Yes ___ No ___
   If yes, list the functions in your organization supported
   by this project.

2. What is the priority rating of this project?   _____

3. Will the number of runs change?   Yes ___ No ___
   If yes, indicate the reason here and enter the expected
   number of runs per month on the attached chart.

4. Will the amount of central processor time required change? Yes ___ No ___
   If yes, indicate the reason here and enter the expected
   amount of processor time required per month on the
   attached chart.

5. Will there be any modification or addition to the software? Yes ___ No ___
   If yes, and if OJCS manpower and/or computers (batch)
   will be used to support this effort, then enter the ex-
   pected requirements on the attached chart. Attach the
   list of planned modifications or additions.

6. Will there be a change in requirements for equipment that   Yes ___ No ___
   is located within your area?
   If yes, indicate the reason here and list the equipment to
   be added or deleted on the attached chart.

Existing Time Sharing Projects
(IBM 360/CP)

Project Name: _____ Organization: _____

1. Will this project continue for the next fiscal year?   Yes ___ No ___
   In addition to time sharing, do you also report batch
   (IBM 360/OS) work on this project?   Yes ___ No ___

2. What is the priority rating of this project?   _____

3. Will the number of terminal sessions change?   Yes ___ No ___
   If yes, indicate the reason here and enter the expected
   number per month on the attached chart.

4. Will the average length (connect time) of a terminal session Yes ___ No ___
   change?
   If yes, indicate the reason here and enter the expected
   average length on the attached chart.

5. Will there be any modifications or additions to the software? Yes ___ No ___
   If yes, and if OJCS manpower and/or computers (CP/CMS)
   will be used to support this effort, enter the expected re-
   quirements on the attached chart.

6. Will there be a change in the requirements for equipment
   that is located within your area?   Yes ___ No ___
   If yes, indicate the reason here and list the equipment to be
   added or deleted on the attached chart.

New Projects

New Project: _____ Organization: _____

1. List the functions in your organization that will be supported by this project.

2. What is the priority rating of this project? _____

3. Do you plan to use OJCS manpower to develop this project? Yes __ No __
    If yes, enter your manpower requirements on the attached chart.

4. Do you plan to use OJCS computers to develop this project? Yes __ No __

5. Do you plan to use OJCS computers for production work once
    this project is developed? Yes __ No __
    If yes, enter the computer and manpower (if any) require-
    ments for this phase on the attached chart.

6. Does this project require permanent on-line disk storage? Yes __ No __
    If yes, list the space requirement on the attached chart.

7. Will there be a requirement for equipment to be located within
    your area? Yes __ No __
    If yes, indicate the reason here and list the equipment on the
    attached chart.

NEW PROJECTS

NAME: _____   ORGANIZATION: _____

FY-75	July	August	September	October	November	December	January	February	March	April	May	J
Software Development												
OJCS Manhours												
Batch CPU Hours												
CP/CMS Hours												
Production												
CJCS Manhours												
Batch CPU Hours												
CP/CMS Hours												
On-Line Storage												
No. of Records												
Ave. Record Length												
*Equipment												